

REMARKS/ARGUMENTS

Claims 1–16 are pending in the captioned application. Claims 4–16 have been withdrawn, and claims 1–3 are currently under examination. Applicant has amended claims 1–3 and respectfully submits that the amendments are fairly based on the specification and respectfully request their entry.

With regard to Applicant's traversal of the restriction requirement, the Examiner has found that it is not persuasive and made the requirement final. Accordingly, claims 1–3 stand under examination in the captioned application.

The Examiner has rejected claims under 35 U.S.C. § 102(b) as “being anticipated by Owen et al. (US 4,795,698)”.

Specifically, the Examiner states, “Owen teaches magnetic-polymer particles wherein the magnetic particles are magnetite (Fe_3O_4). Such magnetic polymer particles are coated with avidin...”

In response, Applicant respectfully asserts that the Examiner has mischaracterized the instant invention. Specifically, as stated at pages 3–4, the instant invention provides compositions comprising colloidal Fe_3O_4 particles coated with a biotin-binding protein.

The particles themselves are coated with the biotin-binding protein without the need for additional coatings, resulting in particles which have a very high iron content. This aids the speed and efficiency of magnetic separations.

In contrast, in the methodology provided by Owen, et al. the magnetic particles are formed by combining iron oxide in solution with a polymer (such as a protein) (see col. 3, lines 25–35). These coated particles are disclosed as capable of being “tailor-made to include specific biofunctional ligands useful in various...applications” (see col. 3, lines 58–61). As such, the particles are quite different from those of the instant invention.

To emphasize this and to emphasize that there is no additional polymeric layer to which the biotin-binding proteins are attached, applicants have amended claim 1 to recite that the composition consists essentially of the particles coated with the biotin-binding protein. Such is neither disclosed nor even suggested by Owen, et al.

In view of the foregoing, Applicant respectfully asserts the Examiner’s rejections cannot be sustained and should be withdrawn.

The Examiner has rejected claims 1–3 under 35 U.S.C. § 102(b) as “being anticipated by Ekenberg (US 5,693,784)”.

Specifically, the Examiner states, “Ekenberg teaches an agglomeration of colloidal magnetic particles coated with streptavidin. The magnetic particles are metal oxides (Fe₃O₄)...”

In response, Applicant reiterates the arguments as to the inapplicability of the Owens, et al. reference, and respectfully asserts that the Ekenberg reference does not teach direct coating. More specifically, the reference discloses that “The paramagnetic particles may be provided with a nonmagnetic polymeric matrix or coating” (see col. 4, lines 66–67), and discloses particles available from Advanced Magnetic Corporations as useful products in the processes of the invention disclosed (see col. 5, lines 10–23).

Such particles generally comprise silanized particles, i.e. particles treated with silane to facilitate the bonding of the ligands (see e.g. US 4,695,393). Further, example 8 discloses particles made by the method of Owen, et al. Thus, Applicant respectfully submits that while the references neither disclose nor enable the particles of this invention.

In view of the foregoing, Applicant respectfully asserts the Examiner's rejections cannot be sustained and should be withdrawn.

The Examiner has rejected claims 1–3 under 35 U.S.C. § 102(b) as “being anticipated by Rao (US 5,660,990)”.

Specifically, the Examiner states, “Rao teaches magnetic particles coated with avidin or streptavidin. Magnetic particles behave as colloids and are prepared according to the methods of Owen (US 4,795,698). These particles are Fe₃O₄...”

In response, Applicant reiterates the arguments as to the inapplicability of the rejection in view of Owen, et al., and respectfully points out that the patent states that the magnetic particles having their desirable properties “can be prepared as described in U.S. Pat. No. 4,795,698,” (see col. 9 lines 1–2). Because the same methodology is utilized, Applicant respectfully asserts that the particles prepared will be those of Owen, et al., and, thus, that the Rao reference neither discloses nor even suggests the particles of the instant invention.

In view of the foregoing, Applicant respectfully asserts the Examiner's rejections cannot be sustained and should be withdrawn.

The Examiner has rejected claims 1–3 under 35 U.S.C. § 102(e) as “being anticipated by Terstappen (US 6,228,624)”.

Specifically, the Examiner states, “Terstappen teaches using magnetic particles prepared by methods in US patent 4,795,698 by Owen wherein Owen teaches preparation of magnetic particles by using solution containing Fe(II) and Fe(III) and a polymer treated with a strong base in order to precipitate magnetic iron oxides such as magnetite (Fe₃O₄) in a form which is intimately combined with the polymer. Such magnetic particles are coated with avidin or streptavidin...”

Initially, while Applicant is responding to this rejection, such response should not be taken as an acquiescence that the Terstappen patent is properly prior art against the instant invention. Nevertheless, as the Examiner has admitted, the particles are prepared by methods in U.S. 4, 795, 698 (Owen, et al) and as such neither discloses nor even suggests the particles of the instant invention.

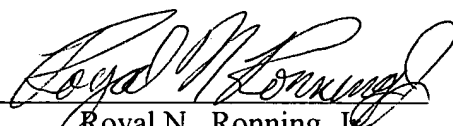
In view of the foregoing, Applicant respectfully asserts the Examiner’s rejections cannot be sustained and should be withdrawn.

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In view of the foregoing, Applicant respectfully asserts the Examiner's rejections cannot be sustained and should be withdrawn. Applicant believes that the claims, as amended, are in allowable form and earnestly solicit the allowance of claims 1-3.

Respectfully submitted,

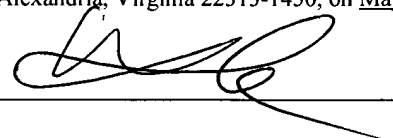
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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, on May 10, 2005.

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